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AUTH.NAME AUTHOR AFFILIATION
CURTIS,N.W. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
SCHWENCER,A. Licensing Branch 2

See rpt.

SUBJECT: Forwards proprietary "Analysis of Feedwater Containment Isolation Valves Following Postulated Pipe Rupture," in response to NRC 830831 request for addl info.Affidavit encl rept withheld (ref 10CFR2.790).

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PP&L Pennsylvania Power & Light Company
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Norman W. Curtis
Vice President-Engineering & Construction-Nuclear
215/770-7501

MAR 15 1984

Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
FEEDWATER CHECK VALVE ANALYSIS
ER 100450 FILES 285/841-2
PLA-2111

Docket Nos. 50-387
50-388

Dear Mr. Schwencer:

Your letter of August 31, 1983 entitled "Request for Additional Information on Susquehanna Feedwater Check Valve Analysis" requested PP&L to provide clarification of the analysis summarized in the report titled "Evaluation of Feedwater Check Valves Due to Postulated Pipe Rupture" which was prepared for PP&L and submitted to the NRC on March 11, 1983.

Specifically, PP&L was asked to provide additional information on the assumptions used to determine 1) the postulated break opening time of 100 milliseconds, 2) the postulated break location (at the valve), and 3) the allowable stress value used for the valve hinge pin material.

In response to the NRC's request a report entitled "Analysis of Feedwater Containment Isolation Valves Following A Postulated Pipe Rupture" is attached.

The enclosed report details an analysis of the feedwater isolation valves following a postulated one-millisecond feedwater line break outside containment, provides the basis used in postulating the break location which would result in the worst case loading for the feedwater check valves, and discusses the allowable sheer stress in the hinge pins & the pins material yield strengths.

A001
B001 1/1

Pursuant to 10CFR2.790, we request that the attached report be withheld from public inspection.

If you have any questions, please contact us.

Very truly yours,

N. W. Curtis
Vice President-Engineering & Construction-Nuclear

Attachment

cc: R. L. Perch - NRC

AFFIDAVIT

I, Norman W. Curtis, being duly sworn according to law depose and state as follows:

1. I am Vice President-Engineering & Construction-Nuclear, Pennsylvania Power & Light Company, and have been delegated the function of reviewing the information described in paragraph 2 which is sought to be withheld and have been authorized to apply for its withholding.

2. The information sought to be withheld is a report owned by PP&L entitled "Analysis of Feedwater Containment Isolation Valves Following A Postulated Pipe Rupture" which is attached hereto and made a part hereof as Exhibit A.

3. The report described in Par. 2 is confidential for the following reasons:

a. The basis of the subject report is a computer code which models the fluid behavior and predicts the dynamic response of valves. This code was licensed to PP&L by the Electric Power Research Institute (EPRI). As an EPRI member utility, PP&L provides considerable funding for development of and access to EPRI computer codes. Non-member organizations provide no funding and do not have access to the EPRI codes. In this regard, non-member organizations would have to develop their own codes or purchase the code from EPRI.

b. The dynamic models used to predict closing characteristics of the valves were developed by PP&L for use in the EPRI code. A considerable amount of Company resources were expended in development/refinement of the models.

c. The report was developed as a result of considerable effort and expense by PP&L. Approximately 1400 PP&L manhours and $50,000 in contracted services have been expended to date in connection with research, analysis, coordination, management and preparation of the subject report.

d. Access to the analysis/report is limited to PP&L personnel and consultants working on Susquehanna under contract to PP&L. The report has not been distributed externally.

e. Although the hydraulic and structural analyses were prepared specifically for application to Susquehanna Units 1 and 2, the results could be applied by analogy to similar systems and valves in other facilities. Public disclosure of the subject report would allow outside organizations to apply results of the analysis PP&L spent considerable time and money to develop, without remuneration to PP&L.

f. The industry's and NRC's focus on feedwater containment isolation valve integrity and waterhammer creates a market for the analysis/information contained in the subject report. Public disclosure would eliminate the reports marketability and preclude PP&L from recouping any expenses incurred in developing the analysis.

Norman W. Curtis
Vice President-Engineering &
Construction-Nuclear

Sworn and subscribed before me this 15th day of March, 1984.

Notary Public

MARTHA C. BARTO, Notary Public
Allentown, Lehigh County, Pa.
My Commission Expires Jan. 13, 1986